

CLAIMS

1. A vacuum insulated refrigerator cabinet comprising an evacuation system for evacuating an insulation space (10) of the cabinet when pressure inside such space is higher than a predetermined value, characterised in that it comprises a sensor device having an insulation reference element (14) located on one side of said insulation space (10) and temperature sensors (A, B, C) for assessing the differences of temperature (ΔT_1 , ΔT_2) across the insulation space (10) and across the insulation reference element (14), such sensor device being suitable for providing the evacuation system with a signal related to the ratio of the above differences of temperature.
2. A vacuum insulated refrigerator cabinet according to claim 1, characterised in that the insulation reference element (14) is located on the external side of the cabinet.
3. A vacuum insulated refrigerator cabinet according to claim 1 or 2, characterised in that temperature sensors are three thermocouples (A, B, C) located on a surface of the insulation space (10) opposite the insulation reference element (14), between the insulation space and the insulation reference element and on a surface of the insulation reference element opposite the insulation space.
4. A vacuum insulated refrigerator cabinet according to claim 1 or 2, characterised in that temperature sensors (A, B, C) are resistance thermometers.
5. A vacuum insulated refrigerator cabinet according to claim 4, characterised in that temperature sensors (A, B, C) have an accuracy at least of 0,2°C.
6. A vacuum insulated refrigerator cabinet according to claim 1, characterised in that the evacuation system is adapted to be triggered when the ratio of the above difference of temperature corresponds to a change in heat transfer coefficient higher than 10%.
7. Method for assessing the pressure inside an insulation space (10) of a vacuum insulated cabinet of a refrigerator, characterised in that it comprises the steps of evaluating the differences of temperature across

the insulation space (10) and across an insulation reference element (14) placed on a side of such insulation space, such evaluation being carried out on the same zone of the vacuum insulated cabinet where the insulation reference element is also placed, and providing a control system of the refrigerator with a signal related to the ratio ($\Delta T_1/\Delta T_2$) of the above differences of temperature, such ratio being indicative of pressure value inside the insulation space.